

### **Abstract**

Described are techniques used in connection with providing continuous data backups of primary storage. A first technique uses distributed partial journals and a copy of the primary storage. A distributed partial journal is used for each input port. The partial journals are periodically incorporated into a main journal in accordance with a time stamp for the data modification recorded in each partial journal entry. A second technique, a copy on write, uses the distributed partial journals without requiring a copy of the primary storage. For each write to an address, the current contents of the address is journaled before the address on primary storage is updated.

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